

A qualitative study of health professionals' views on the holding of children for clinical procedures: Constructing a balanced approach

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Abstract

Children undergoing clinical procedures can experience fear, uncertainty, and anxiety which can cause them to become upset and resist procedures. This study aimed to capture an international perspective of how health professionals report they would act if a child was upset and resisted a procedure. An online questionnaire, distributed through network sampling, used three vignettes to elicit qualitative open text responses from health professionals. Seven hundred and twelve professionals participated, resulting in 2072 pieces of text across the three vignettes. Many professionals reported that they would use distraction and spend time to inform and engage children in making choices about their procedure. However, most professionals indicated that if a child became uncooperative they would hold or instruct the holding of the child in order to get the procedure done 'as quickly as possible'. The findings demonstrate that professionals experience difficulty in balancing the different agendas, rights and priorities within the momentum which can build during a clinical procedure, often resulting in the child's voice and rights being undermined. A more balanced approach could be facilitated by a 'clinical pause' that would equip professionals with the time to consider children's expressed wishes and explore alternative approaches to holding.

Keywords

Agency, children, clinical pause, clinical procedures, holding

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Background

Children can experience fear, anxiety, uncertainty, and upset prior to and during procedures such as blood tests, immunizations, radiological examinations, and medicine administration (Bray et al., 2015; Carter et al., 2014; Jaaniste et al., 2007; McCarthy et al., 2014; Pelander and Leino Kilpi, 2010). Evidence shows that procedural anxiety can cause children to become distressed and resist procedures (Duff et al., 2012; Sparks et al., 2007). This can be particularly pronounced in younger children or those who have experienced difficult procedures in the past (Duff et al., 2012). Despite the use of distraction, guided imagery and analgesia, if a child is upset and uncooperative they are often physically held to facilitate a clinical procedure being completed (Brenner, 2007; Bray et al., 2015). This holding may range from a child being cuddled tightly on a mother's knee to restrict their movement to a child having their arms and legs held by a parent and/or health professional in order for a procedure to be completed. There is lack of consensus and consistency in how holding is defined within the literature and professional guidance, with a range of terms and definitions being used including clinical holding (Lambrenos and McArthur, 2003), therapeutic holding (Royal College of Nursing 2010), immobilization (Darby and Cardwell, 2011; Graham and Hardy, 2004), and restraint (Brenner, 2007; Hull and Clarke, 2010; Homer and Bass, 2010). The range of definitions and terms has contributed toward a lack of shared understanding between professionals as to what constitutes holding practices (Svendsen et al., 2017, Bray et al., 2018). There is, however, some evidence that the forceful holding of a child for a procedure can cause that child to experience short- and long-term psychological distress and a reluctance to undergo further procedures (Duff et al., 2012) and can also impact on parents who report high levels of stress and anxiety when they are called upon to hold their child (Bray et al., 2015).

The literature highlights that when it has been decided a child needs a clinical procedure, health professionals experience a degree of uncertainty around the best course of action to take if the child is uncooperative. Some evidence suggests that health professionals do not look to policy or guidance to inform their practice in relation to holding children (Kirwan and Coyne, 2017) but are guided by local practices, colleagues, and their own personal judgments (Bray et al., 2015; Valler-Jones & Shinnick, 2005). The actions and decisions of professionals during clinical procedures can also be guided by the expressed wishes of parents to complete their child's procedure quickly (Bray et al., 2015). Health professionals report that holding a child for a procedure can be stressful and upsetting to them and can erode the trusting relationship they have with a child (Brenner et al., 2014; Bray et al., 2015; Kirwan and Coyne, 2017; McGrath et al., 2002). Despite these reports, health professionals describe children being held for procedures as an accepted and expected part of pediatric practice (Bray et al., 2015; Homer and Bass, 2010; Kirwan and Coyne, 2017; Page and McDonnell, 2013; Tomlinson, 2004), and holding children is often not a practice of 'last resort' as indicated within the limited professional guidance available (British Medical Association, 2010; Macintyre et al., 2010; Ministry of Health, 2008; Royal College of Nursing, 2010; The Royal Australasian College of Physicians, 2005).

Most of the literature focusing on children being held for procedures originates from single-country studies and primarily from the United Kingdom, and there is lack of international research examining holding practices. This study aimed to gain an international view of health professionals' reported practice. The research question underpinning this study was what are the reported practices of health professionals when a child is resisting a clinical procedure?

Methods

A short anonymous, self-administered electronic questionnaire composed of closed and open questions and three vignettes was used to obtain the views and perceptions of health professionals. This design was chosen as it has been demonstrated to be an acceptable and appropriate way to elicit the views and opinions of health professionals (Simons et al., 2017; Holt et al., 2013). The questionnaire was administered and collated using Survey Monkey™ software. This electronic software is compatible with information and technology systems globally, does not require large downloads, and is not blocked by professional firewalls. The questionnaire was designed to be short and focused in nature, as this has been shown to improve response rates (Dillman et al., 2014). The questionnaire consisted of 16 questions. Thirteen questions used structured, closed yes/no, or Likert-type scale responses relating to the professionals' demographic details; the reported frequency of holding children for procedures; awareness of policies, procedures, and professional guidance; attendance at formal training; and the alternatives to holding used by the respondent (Bray et al., 2018). This article reports on and discusses the findings from the open text responses to the three vignettes of clinical situations.

The vignettes aimed to explore health professionals' reported beliefs and responses to clinical situations that may lead to a child being held in order for a procedure to be conducted (Figure 1). The vignettes aimed to follow guidance from Mah et al. (2014) by presenting a short 'snapshot' of a procedure, detailing key information and attempting to convey a sense of story. Vignettes have been used within research to explore the decision-making practices of health professionals (Evans et al., 2015) and are seen as particularly relevant when exploring professional beliefs and values (Mah et al., 2014) as well as practices that may be seen as contentious (Brenner et al., 2013). By using hypothetical but realistic vignettes, we were able to ensure anonymity with regard to the individual health professional and service, and we aimed to prompt authentic responses as to how health professionals would respond in identical situations. The vignettes were developed based on the key themes from the literature, based on the clinical experience of the team, and to represent different genders and developmental levels of children. The scenarios aimed to be authentic and resonate with the day-to-day experiences of health professionals. This authenticity is described as essential to ensure respondents are able to see their own 'lived experiences' of practice in the vignettes (Mah et al., 2014). The questionnaire presented the vignette followed by a single question: *how would you deal with this situation?*

The vignettes were pretested and piloted with 18 health professionals known to the project team (six nurses, six doctors, and six allied health professionals) across the United Kingdom, New Zealand, and Australia. The pretesting resulted in some of the sentences within the vignettes being altered and the layout of the vignettes within the questionnaire being revised.

Sampling. Network and snowball sampling were used to distribute the electronic questionnaire. This approach to sampling is described as a good approach when the study is seeking a broad range of data on behaviors and perceptions (Dragan and Isaic-Maniu, 2013). Information on the study and the link to the questionnaire were distributed through professional networks (Royal College of Nursing, Children and Young People's Forum, Children's Healthcare Australasia, Paediatric Forum at the Royal Children's Hospital Melbourne, and Paediatric Society of New Zealand) and personal communications with key organizations (College of Child and Youth Nurses (CCYN), New Zealand Nurse Organisation (NZNO)). Snowballing of the questionnaire was encouraged and

VIGNETTE 1

Rose, aged 6, requires a finger prick for a blood test. Her parents have not told her the reason she is attending clinic and she has not previously had a blood test. When Rose enters the room she becomes anxious and starts to cry and her mother automatically lifts Rose onto her knee and holds her around her middle. Rose is given some explanation by the phlebotomist but is now crying that she 'does not want it done' and is sitting on her hands.

VIGNETTE 2

Danny, aged 3, needs to have an X-ray for a suspected broken arm. He has been given a magazine by his parents to look at while it is done, which he is holding in his 'good hand', but he is sobbing quietly, looks anxious and will not keep his arm still when the X-ray is to be taken. His dad is holding Danny's fingers and upper arm but this is hurting Danny. His dad offers to hold Danny more firmly so as to get the X-ray over and done with quickly.

VIGNETTE 3

Kim, aged 13, needs to have a blood test as part of her on-going hospital treatment. Kim is upset and refusing to let the procedure take place. The medical team want the results "quickly" so that they can determine the course of Kim's treatment over the next hours and days. Kim's parents have told you to "Just go ahead and get it done with". Kim says "Go away, leave me alone, I don't want it done". Kim's dad says "Look, I'll hold Kim's arm so that you can get on with it"

Figure 1. Vignettes as presented in the questionnaire.

distribution also occurred through the research team's personal and professional networks and through social media (e.g. closed professional Facebook pages and professional twitter accounts).

Ethics approval. Ethics approval was obtained from committees in the United Kingdom (FREC SC 22), New Zealand (AUTEC 15/414), and Australia (H0015373) (home countries of team members).

Analysis. The text responses to the scenarios were analyzed using content analysis (Hsieh & Shannon 2005) to gain understanding and knowledge of the phenomenon under investigation (Downe-Wamboldt, 1992). Analysis was inductive (Kondracki et al., 2002) with initial analysis focusing on highlighting words and phrases within the text that captured key thoughts or concepts. These were then grouped into codes to form a coding scheme (Hsieh and Shannon, 2005). Analysis and the development of codes and categories were undertaken initially by members of the research team within each of the lead countries involved (United Kingdom, New Zealand, and Australia).

Table 1. Country of respondents.

Country of respondent	Number of participants (n = 712)
Australia	382
New Zealand	189
United Kingdom	111
Sweden	16
Greece	4
Malaysia	3
Norway	3
Qatar	2
Austria	1
Canada	1

The coding scheme, categories, and explanations were then discussed in a full team meeting which resulted in further refinement and development.

Findings

In total, 2072 pieces of text were analyzed; 712 participants responded to vignette 1, 667 to vignette 2, and 648 to vignette 3. The responses were from a range of health professionals (nurses, doctors, play specialists and allied health professionals [radiographers, radiologists, technicians]) currently practicing in the United Kingdom, New Zealand, Australia, Sweden, United States, Greece, Malaysia, Norway, Qatar, Austria, and Canada (see Table 1). Quotations are presented verbatim and identified by country, profession, and participant number (PN).

Despite nuanced differences in legislation, professional guidance, and education, there were few between-country differences noted; levels of uncertainty and a wide range of approaches were reported by the professionals who responded to these vignettes. Evidence-based guidance was not mentioned as informing practice in any of the responses to the vignettes.

Constructing a balanced approach to children's procedures

The key finding relates to how professionals reported weighing up and trying to balance different agendas and outcomes in order to decide how to proceed when a child was resisting a procedure. The findings show that, in the main, professionals considered children's choices, children's developing agency, and the benefits of using child-centered practices. However, there were factors such as parents' agendas, service demands, and the perceived benefits of getting a procedure completed quickly which could tip the balance toward professionals overriding children's expressed choices and using or instructing the use of holding practices. Professionals described that they found it hard to know how best to proceed when all the approaches to engage a child had failed, the child was resisting, and the procedure needed to be completed. An example that typified this was expressed by a professional who had acknowledged the need to work in a child-centered way but when presented with an uncooperative child described holding as inevitable and the only way forward.

Stop and let everyone take a breather. Explain the importance to Kim for her treatment and ask what has helped in the past, emla, distraction and allow her to have some control, set a time limit and stick to it. Needs to be done and Kim can assist to help make the inevitable quicker and less painful—When all else fails—‘Take the NIKE approach and just DO IT!’ (Australia, Nurse PN 723)

It was clear that there is inherent skill in balancing the competing demands, interests, and outcomes within the complex interaction that underpins a procedure. This concept of balancing is further discussed within the following themes: (i) balancing the time to prepare, inform, and engage with children against service demands; (ii) balancing children’s right to make choices and have control against the rights of their parents; and (iii) balancing the perceived need to ‘get it done quickly’ against stepping back and considering children’s long-term outcomes.

Balancing the time to prepare, inform, and engage with children against service demands

Health professionals described that spending time to prepare and inform children about their procedure reduced the need for holding practices. Time was seen as an investment in ‘gaining the child’s trust’, ‘listening to and hearing the child’, and trying to ‘build a story with them about what was going to happen’. These stories were described as being adapted according to the individual child.

Tell her (Rose) that I’m sure she’s really brave and that there will be a surprise for her in the ‘treasure chest’ once the blood has been collected, tell her that she has princess blood or fairy blood and that it is very precious. (Australia, Nurse PN 1029)

Professionals described methods they would use to help a child understand what was going to happen during a procedure, for instance, one respondent described how they would use their phone to ‘show Danny that taking an X-ray is just the same as taking a photo’ (New Zealand, Pediatrician, PN 79). Some professionals identified how they would use well-known games such as ‘statues’ or ‘who can stay still the longest’ for distraction and to gain the child’s cooperation alongside techniques such as ‘stories, starlight box and bubbles’ (United Kingdom, Nurse, PN 88). Professionals described having to purposefully ‘allow time’ and ‘make time’ to inform and prepare children and how it was difficult to balance this against service demands and the quick throughput of patients; ‘if we have time then we could prepare her and it may not be necessary to hold her [Rose]’ (United Kingdom, Nurse, PN 319). The lack of time and service demands were also seen to constrain the time children had to ‘process what was going to happen’ (New Zealand, Educator, PN 902), and many professionals stated that it ‘would be nice’ and ‘would make a difference’ to involve play specialists more and have ‘more hands on deck’ (United Kingdom, Nurse, PN 431).

Many of the professionals recognized that the short-nature of many interactions with children meant that parents had an important role in preparing and distracting their child during procedures and professionals described how they would coach parents to influence future interactions.

I would also discuss with mum how important it is to prepare children for procedures. I would still discuss this with mum even if Rose let the blood test take place as it is not known how often Rose will come into contact with health care professionals in the future. (United Kingdom, Nurse, PN 38)

Some professionals who responded to the questionnaire did not report that they would attempt to inform and/or distract a child who was upset; in these cases, the perceived inevitability of ‘having

to hold', the benefits of getting the procedure completed quickly or the time pressures within a service eroded the professionals' ability or decision to prioritize the child's needs.

Balancing children's rights to make choices and have control against the rights of their parents

Many of the responses focused on how facilitating children's choices for certain parts of their procedure could help improve cooperation and reduce the need for holding. These choices included letting children 'choose where to sit', 'which book to look at', and 'who they want to hold their hand'.

I would make a plan with Rose about how she would like the procedure to occur - let her make choices where possible e.g. would you like to sit on mum's lap or on the chair? Which finger would you like to use for the test? (Australia, Play therapist, PN 1036)

Professionals reported that it was important to 'make sure that the choices offered were realistic' (United Kingdom, Doctor, PN 992). There was consensus that Rose would not be allowed to decide whether the procedure went ahead or not but could be offered choices over where and how a procedure may be carried out. In many circumstances, the parent's choices and interests were described as outweighing the child's, for example 'If Dad wants to force the child it is his choice' (Australia, Nurse, PN 591) or by health professionals seeming to include the child in the procedure almost as an afterthought.

Talk to Dad to check he still wants the X-ray to continue . . . he may want to just 'get it done'. Then talk to Danny and show him what is going to be done. (Australia, Nurse, PN 175)

Some health professionals described how they would provide coaching to try and influence parents' actions during a procedure by 'advising Dad that holding Danny more firmly will only hurt him and scare him' (Australia, Nurse, PN 901). In this way, professionals recognized that in a difficult situation parents may not always act in the best interests of their child.

The approach taken and the choices afforded to a child appeared to be influenced by their age. In vignette 3, where the child was older, professionals were more likely to report that they would engage the child in a more active and collaborative way to 'ask her to help find a solution to 'our' problem' (Australia, Doctor, PN 112). Older children were described as more rational and more able to engage in decision making and, therefore, afforded a higher level of autonomy.

She is at an age where she will be trying to assert some control over her own health and needs to be given opportunity to do this . . . stop and let Kim feel like she is in control. Get her to voice her concerns and fears and ensure she feels like she is being listened to, negotiate with her and include her in the decision. (New Zealand, Nurse, PN 53)

However, there was variation in the level of autonomy afforded. Some respondents reflected that 'adolescents with chronic conditions are hard to deal with. I would try to make a deal with her then tell her this has to be done—you do not have the option' (Greece, Doctor, PN 607). In these cases, the adolescent was told what was going to happen and either agreed to 'help' and 'go along' with the professionals' or parents' plan or was held still. The decisions of the parents and professionals

in these instances outweighed the adolescents' expressed wishes, their dissent was over-ruled, and the balance was tipped toward the child being held.

Balancing the perceived need to 'get it done quickly' against stepping back and considering children's long-term outcomes

Many respondents stated that they would take time to assess the urgency and necessity of the planned procedure before proceeding to hold or instruct the holding of a child and some stated that they may stop and reassess their initial decision during the procedure should the child become too distressed. Many respondents stated that they would 'not force a child to undergo a procedure against their will' (NZ, Nurse, PN 335) or 'holding a child forcefully would be a last resort' (Australia, Nurse, PN 691). Health professionals reasoned that it was important to have time for a calm and considered approach, balancing holding a distressed child to complete the procedure against the effects of this distress on any subsequent future procedures.

I'd explain to the parent that forcing her [Kim] to go through with the test and traumatising her is not a good idea for her ongoing treatment. (Australia, Doctor, PN 332)

The impact of distress and holding on future procedures was discussed mainly in relation to Kim's vignette which overtly highlighted the ongoing nature of her treatment. However, the possible long-term implications of holding a distressed child for a procedure was also acknowledged in relation to all three scenarios. Decisions to proceed or not proceed were informed by not wanting to cause long-lasting harm: to 'scar her for life' (Australia, Nurse, PN 355).

However, many decided that in reality 'not doing it is NOT an option' (Australia, Doctor, PN 593) and completion of the procedure was non-negotiable and seen as inevitable. In some cases, particularly in response to the scenarios with younger children, the professionals identified that it was expected that a child would be 'upset and uncooperative' and 'at 6 there really is no reasoning once the child has decided no' (United Kingdom, Nurse, PN 605). This perception made professionals less likely to prioritize spending time preparing and engaging the child in distraction and more likely to report the need for holding in order to complete the procedure.

If Rose will not calm down and assent to the procedure, explain to her that it had to be done now. Rose would then be held while the procedure occurred. (Australia, Nurse PN 985)

Sometimes holding was seen to facilitate a better experience for a child as 'holding still will mean that the procedure will be less painful and faster' (Australia, Nurse, PN 367). In many cases, professionals described that getting 'it over and done with is best' (New Zealand, Nurse, PN 781) and that this was facilitated by the use of firm holding and speed. When faced with a distressed child and a procedure to be completed, the balance for some health professionals tipped toward holding and completing the procedure with less consideration for the child's long-term outcomes.

Discussion

The amount of detailed commentary health care professionals provided indicates a high degree of interest in what is acknowledged to be a difficult and stressful part of children's health care for everyone involved (Bray et al., 2015; Brenner, 2007; Brenner et al., 2014). The findings indicate that professional practice during children's procedures is a fine balance of weighing up different agendas, views, and priorities. Within this study, professionals described that when attempts to

distract and engage a child failed, in most cases, they would persist in completing a procedure despite the child expressing resistance and dissent. The responses of professionals indicate that children, especially younger children, were often positioned as less agentic, passive recipients of care with their rights, and expressed dissent carrying less weight or importance than those of their parents, professionals, and the demands of the clinical service. Although many of the professionals stated that it was important to work in a child-centered way, in reality, the rights of a child to be listened to and their views taken seriously (United Nations General Assembly, 1989) seemed difficult to uphold when balanced against the parents' consent to proceed and parents' and health professionals' perceived need for a procedure to be completed. This study supports other findings that show that despite children's rights and agency being increasingly acknowledged within health care (Montreuil and Carnevale, 2016; Rasmussen et al., 2017), they are still likely to be overshadowed by the opinions, permissions, and agendas of the adults who surround them (Feenstra et al., 2014; Livesley and Long, 2013). Previous work has shown that children are less likely to be asked by professionals for their permission to proceed (assent) with a procedure than their parents (Bray et al., 2018). The child's perspective and experience of being held during clinical procedures is currently lacking within the evidence and literature; there is a need for children's voices to be prioritized to prevent adult agendas dominating debate and opinion within this field.

The vignettes presented what are generally considered as straightforward clinical procedures, but the responses of professionals indicate that a child's resistance can prompt them to have to weigh up different views, priorities, and cues in order to make a decision about whether to proceed with a procedure or not. This weighing up seemed to become more difficult during the stressful conditions of a procedure when time was short and options were perceived as limited. The short time line of many procedures and the momentum gained during the interaction, seemed to lead to the decision to 'adopt the Nike approach and just do it'. This building of a collective momentum in procedures has been noted in previous work within this field (Bray et al., 2016). Professionals in this study demonstrated that they were often 'thinking on their feet' within pressurized services, and when their attempts to engage with a child did not work, the perceived inevitability of a procedure being completed tipped the balance toward a child being held. This resonates with the notion of 'fast thinking' (Kahneman, 2011), where a professional does not or does not feel able to pause and consider alternatives but works according to established norms. Holding a child in order to complete a procedure is often an established norm, it is an accepted and expected part of practice (Bray et al., 2015; Coyne and Scott, 2014; Kirwan and Coyne, 2017). Our findings support previous work which shows that professionals' actions or decisions within this context are generally informed by personal and professional experience and judgment rather than by guidance, evidence, or critical debate (Bray et al., 2018; Kirwan and Coyne, 2017).

Our findings suggest that when health professionals continue to undertake a procedure despite a child's resistance, it is difficult for them to pause the momentum, stop, and weigh up options and reconstruct a balanced approach allowing children's expressed wishes to be considered. Benefits of pausing are evident in other fields such as leadership where enacting the 'pause principle' is seen as 'a conscious, intentional process of stepping back to reflect and deliberate' to then move 'forward with greater clarity, authenticity, purpose, and contribution' (Cashman, 2012). Since this 'pause point' (Cashman, 2012) or 'clinical pause' (stepping back from a situation) is more difficult to enact as the momentum of a clinical procedure progresses, we propose that it would be best placed before a procedure begins. This 'clinical pause' would facilitate a discussion including the child, to try and construct a balanced approach to the procedure; acknowledging what will happen, the different roles and priorities of those present, how the child can be best supported, and which cues

will prompt a reassessment of the procedure. Enacting this clinical pause requires professionals and services to value the time spent preparing, informing, and facilitating children to make choices and acknowledge children's agency within health care procedures. Despite being more challenging, a 'clinical pause' should also be enacted if a child becomes distressed, once the procedure is underway as it could enable professionals and parents to reassess the procedure, their actions, and how the different agendas are being balanced.

Conclusion

This study has provided an opportunity for reflection and critique of taken-for-granted practices and professionals' reported decisions and actions relating to an important aspect of children's health care. Our findings highlight that during a clinical procedure there are many factors that can 'tip' the balance toward a child's expressed wishes being undermined and them being held against their will. The need to balance different agendas, rights, and priorities within the momentum which can build during a clinical procedure requires professionals to feel equipped to enact a 'clinical pause'; an opportunity to establish a balanced approach that acknowledges children's agency within health care procedures.

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References

- Bray L, Carter B and Snodin J (2016) Holding children for clinical procedures: perseverance in spite of or persevering to be child-centered. *Research in Nursing & Health* 39: 30–41.
- Bray L, Snodin J and Carter B (2015) Holding and restraining children for clinical procedures within an acute care setting: an ethical consideration of the evidence. *Nursing Inquiry* 22: 157–167.
- Bray L, Carter B and Ford K, et al. (2018) Holding children for procedures: an international survey of health professionals. *Journal of Child Health Care*. DOI: 10.1177/1367493517752499.
- Brenner M (2007) Child restraint in the acute setting of pediatric nursing: an extraordinarily stressful event. *Issues in Comprehensive Pediatric Nursing* 30: 29–37.
- Brenner M (2013) Development of a factorial survey to explore restricting a child's movement for a clinical procedure. *Nurse Researcher* (through 2013) 21: 40.
- Brenner M, Treacy MP, Drennan J, et al. (2014) Nurses' perceptions of the practice of restricting a child for a clinical procedure. *Qualitative Health Research* 24: 1080–1089.
- British Medical Association (2010) Children and young people toolkit card 7. Available at: <https://www.bma.org.uk/advice/employment/ethics/children-and-young-people/children-and-young-peoples-ethics-toolkit/7-use-of-restraint-to-provide-treatment> (accessed 15 May 2018).

- Carter B, Bray L, Dickinson A, et al. (2014) *Child-centred Nursing: Promoting Critical Thinking*. Los Angeles: Sage.
- Cashman K (2012) *The Pause Principle: Step Back to Lead Forward*. San Francisco: Berrett-Koehler Publishers.
- Coyne I and Scott P (2014) Alternatives to restraining children for clinical procedures. *Nursing Children and Young People* 26: 22–27.
- Darby C and Cardwell P (2011) Restraint in the care of children. *Emergency Nurse* 19: 14–17.
- Dillman DA, Smyth JD and Christian LM (2014) *Internet, Phone, Mail, and Mixed-mode Surveys: The Tailored Design Method*. New Jersey: John Wiley & Sons.
- Downe-Wamboldt B (1992) Content analysis: method, applications, and issues. *Health care for women international* 13: 313–321.
- Dragan IM and Isaic-Maniu A (2013) Snowball sampling completion. *Journal of Studies in Social Sciences* 5: 160–177.
- Duff AJ, Gaskell SL, Jacobs K, et al. (2012) Management of distressing procedures in children and young people: time to adhere to the guidelines. *Archives of Diseases in Childhood* 97: 1–4.
- Evans SC, Roberts MC, Keeley JW, et al. (2015) Vignette methodologies for studying clinicians' decision-making: validity, utility, and application in ICD-11 field studies. *International Journal of Clinical and Health Psychology* 15: 160–170.
- Feenstra B, Stacey D, Harrison D, et al. (2014) Interventions to support children's engagement in health-related decisions: a systematic review. *BMC Pediatrics* 14: 109.
- Graham P and Hardy M (2004) The immobilisation and restraint of paediatric patients during plain film radiographic examinations. *Radiography* 10: 23–31.
- Holt RI, Nicolucci A, Kovacs Burns K, et al. (2013) Diabetes attitudes, wishes and needs second study (DAWN2™): cross-national comparisons on barriers and resources for optimal care—healthcare professional perspective. *Diabetic Medicine* 30: 789–798.
- Homer JR and Bass S (2010) Physically restraining children for induction of general anesthesia: survey of consultant pediatric anesthesiologists. *Pediatric Anesthesia* 20: 638–646.
- Hsieh HF and Shannon SE (2005) Three approaches to qualitative content analysis. *Qualitative health research* 15: 1277–1288.
- Hull K and Clarke D (2010) Restraining children for clinical procedures: a review of the issues that continue to challenge children's nursing. *British Journal of Nursing* 19: 346–350.
- Jaane T, Hayes B and Von Baeyer CL (2007) Providing children with information about forthcoming medical procedures: a review and synthesis. *Clinical Psychology: Science and Practice* 14: 124–143.
- Kahneman D (2011) *Thinking Fast and Slow*. London: Penguin Books.
- Kirwan L and Coyne I (2017) Use of restraint with hospitalized children: a survey of nurses' perceptions of practices. *Journal of Child Health Care* 21: 46–54.
- Kondracki NL, Wellman NS and Amundson DR (2002) Content analysis: review of methods and their applications in nutrition education. *Journal of Nutrition Education and Behavior* 34: 224–230.
- Lambrenos K and McArthur E (2003) Introducing a clinical holding policy. *Paediatric Nursing* 15: 30–33.
- Livesley J and Long T (2013) Children's experiences as hospital in-patients: voice, competence and work. Messages for nursing from a critical ethnographic study. *International Journal of Nursing Studies* 50: 1292–1303.
- Macintyre PE, Schug SA, Scott DA, et al. (2010) *Acute Pain Management: Scientific Evidence*, 3rd ed. Melbourne: ANZCA & FPM.

- Mah CL, Taylor E, Hoang S, et al. (2014) Using vignettes to tap into moral reasoning in public health policy: Practical advice and design principles from a study on food advertising to children. *American journal of public health* 104: 1826–1832.
- McCarthy AM, Kleiber C, Hanrahan K, et al. (2014) Matching doses of distraction with child risk for distress during a medical procedure: a randomized clinical trial. *Nursing Research* 63: 397–407.
- McGrath P, Forrester K and Fox-Young S, et al. (2002) “Holding the child down” for treatment in paediatric haematology: the ethical, legal and practice implications. *Journal of Law and Medicine* 10: 84–96.
- Ministry of Health (2008) New Zealand Standard, Health and Disability Services Restraint Minimisation and Safe Practice Standard. Available at: <https://www.mentalhealth.org.nz/assets/ResourceFinder/81342-2008-nzs-health-and-disability-services-restraint-minimisation.pdf> (accessed 15 May 2018).
- Montreuil M and Carnevale FA (2016) A concept analysis of children’s agency within the health literature. *Journal of Child Health Care* 20: 503–511.
- Page A and McDonnell A (2013) Holding children and young people: defining skills for good practice. *British Journal of Nursing* 22: 1153–1158.
- Pelander T and Leino Kilpi H (2010) Children’s best and worst experiences during hospitalisation. *Scandinavian Journal of Caring Sciences* 24: 726–733.
- Rasmussen S, Water T and Dickinson A (2017) Children’s perspectives in family-centred hospital care. *Contemporary Nurse* 53: 1–11.
- Royal College of Nursing (2010) Restrictive physical intervention and therapeutic holding for children and young people: Guidance for nursing staff. Available at: <https://www.rcn.org.uk/professional-development/publications/pub-003573> (accessed 15 March 2017).
- Simons J, Carter B, Craske J, et al. (2017) Anesthetists’ views of managing children’s pain post-surgery. *Pain News* 15: 181–184.
- Sparks LA, Setlik J and Luhman J (2007) Parental Holding and Positioning to Decrease IV Distress in Young Children: A Randomized Controlled Trial. *Journal of Pediatric Nursing* 22: 440–447.
- Svendsena EJ, Pedersen R, Moena A, et al. (2017) Exploring perspectives on restraint during medical procedures in paediatric care: a qualitative interview study with nurses and physicians. *International Journal of Qualitative Studies on Health and Well-Being* 12: 1363623.
- The Royal Australasian College of Physicians (2005) *Guideline Statement: Management of Procedure-related Pain in Children and Adolescents*. Available at: <https://www.racp.edu.au/docs/default-source/advocacy-library/management-of-procedure-related-pain-in-children-and-adolescents.pdf> (accessed 15 June 2017).
- Tomlinson D (2004) Physical restraint during procedures: issues and implications for practice. *Journal of Pediatric Oncology Nursing* 21: 258–263.
- United Nations General Assembly (1989) Convention on the rights of the child. Available at: <http://www.un.org/documents/ga/res/44/a44r025.htm>
- Valler-Jones T and Shinnick A (2005) Holding children for invasive procedures: preparing student nurses. *Paediatric nursing* 17: 20.